

Statement in Nino Berube Article

*"CFAC and EPA know that the published picture does not fully depict the pollution levels and direction of plume movement. This picture/chart is based on one set of samples taken late last summer and is only the first of four sets scheduled to be taken. More importantly, and definitely not disclosed to the public, there are two other complete sets of data on the plant's pollution plume."*

It was clearly presented in the Phase I Data Summary Report and discussed with the public that there are four rounds of data to be collected. A Report summarizing all four rounds of groundwater and surface water data will be submitted to the EPA at the end of 2017.

The data sets to which Mr. Berube refers are not comparable to the data published in the Phase I Data Summary Report. The other sets of data that Mr. Berube is referring to (1993 CFAC Report to MDEQ and 2013 EPA Report) were significantly smaller in scope than the data set collected during the recent Phase I Site Characterization in 2016/2017. Those reports included data from less than 20 monitoring wells compared to the 60 wells sampled by Roux. CFAC/Roux Associates tripled the number of on-site wells by installing 44 new monitoring wells to complement the existing 20 monitoring wells onsite. This provides for a better overall site-wide assessment. Additionally, the two data sets that Mr. Berube references were not ignored. Both are discussed in the RI/FS Work Plan that was reviewed and approved by EPA/MDEQ in 2015.

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*"In the 1993 document, the plume had elements of what was shown in April, but there was an additional large plume of pollution east of the potlines building that extended to the river. This was identified primarily because the five drinking/cooling water wells on the plant site were included. These five wells have the longest history of active use and by far the highest concentration of sampling, since they supplied the plant's drinking water. CFAC-Roux pulled these wells from the group to be sampled in their preparation of the RI-FS document, and the EPA technical team never even noticed these critical wells were removed."*

This assertion that the wells were removed from the sampling plan without discussion is false. The historical data from the five production wells (i.e., drinking water wells) was provided to the EPA for review during preparation of the RI/FS Work Plan and Phase I Sampling and Analysis (SAP) documents. The EPA reviewed the data and the data was discussed during multiple project meetings leading up to finalization of the RI/FS Work Plan and Phase I SAP documents.

The historical data does not suggest that the highest concentrations of cyanide and/or fluoride are found in these monitoring wells. The historical data suggests that the concentrations in the production wells are similar to, or lower than, the concentrations found around the potline buildings. In contrast, cyanide and fluoride concentrations are more than an order of magnitude higher in monitoring wells near the historical landfills when compared to monitoring wells in the eastern/southeastern portion of the Site.

Roux proposed to omit the wells from the Phase I sampling due to the logistical difficulties in obtaining representative samples from these wells once the electricity to wells had been terminated as part of the plant closure process. This proposal was approved by EPA. Since that approval, CFAC/Roux have discussed with EPA/MDEQ including sampling of the historical wells during future sampling events to confirm that concentrations are still similar to historical data.

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*"In addition, the 2013 sampling event identified another pollution plume moving south-west towards the Aluminum City area."*

The assertion that a plume moving towards Aluminum City was identified based upon 2013 sampling event on behalf of EPA is false. The results of the 2013 sampling event were presented in a report prepared for EPA to support the NPL listing process, dated April 2014, titled "Site Reassessment Report for Columbia Falls Aluminum Company Aluminum Smelter Facility." This report does not identify a plume of pollution moving towards Aluminum City. The 2013 Report was completed by an EPA contractor to support the NPL listing process.

A significantly larger dataset has been collected by CFAC as part of the RI/FS Phase I Site Characterization process in 2016 and continuing into 2017. All the data collected to date as part of the RI/FS does not indicate any plume moving in the south-west direction towards Aluminum City. Rather, data collected to date from monitoring wells immediately next to Aluminum City have been non-detect for cyanide. In addition, CFAC has conducted quarterly monitoring of residential wells in Aluminum City since 2014; and these results have consistently been non-detect for cyanide.

Roux believes the Phase I Site Characterization results depicting groundwater flow towards the Flathead River is accurate. This characterization was based upon two rounds of water levels collected in August and November 2016. A third round of data collected in March 2017, that was not available at the time the Phase 1 report was prepared, continues to indicate groundwater flow toward the Flathead River. The fourth round of data will be collected in June/July of this year. All of this data will be made available to EPA and summarized in documents that will be made available to the public.

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*"The top of the water table in this area was shown to be higher than the depth of the bottom of the dump that is leaking pollution."*

*"In all probability, this collision of streams is causing the water table in front of the mountain to be forced up toward the surface."*

*"If one considers how Lake Blaine, Many Lakes, Echo Lake, or the ponds on the Orem Farm just across the Flathead River from the plan rise immensely every spring without the existence of a significant inlet stream, one can readily understand this likely mechanism for the dumps to continuously release pollution."*

A discussion of hydrogeology and seasonal groundwater elevations was provided in the RI/FS Work Plan Section 2.5 and is also discussed in the Phase I Site Characterization Data Summary Report in Section 3.3. As noted in the reports, long term historical records indicate that groundwater elevations beneath the Site may fluctuate by greater than 40 feet in some locations. It is well known that the higher groundwater elevations coincide with spring runoff / snow melt conditions. The highest water levels are observed immediately after spring (coinciding with the highest River flows).

The depth of the bottom of the landfills referenced by Mr. Berube is not documented in the historical records for the Site. The depths of the bottom of the landfills were investigated using geophysical methods during the Phase I Site Characterization; however, the findings of this work were inconclusive. The understanding of the interaction between groundwater and the landfills has been identified as a data need and it has always been CFAC/Roux's intention to further investigate this during future parts of the RI/FS. The results of these investigations will be presented in future reports.

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*"In 1994, after exhaustive field work and additional sample well drilling, CFAC capped the leaking West Landfill, by an order of the MDEQ section that authorized waste discharge permits."*

*"It is now 23 years later, and the pollution levels in the wells CFAC identified in 1994 have barely changed. Neither CFAC nor MDEQ ever followed up on the results of the cap and the decision that gave CFAC the discharge permit."*

The assertion that CFAC has never followed up on the groundwater quality results is false. CFAC monitored the groundwater quality on a semi-annual basis as part of the MPDES permit process. The historical groundwater trend data was discussed in Section 3.1.3 of the RI/FS Work Plan. The RI/FS Work Plan was reviewed and approved by the EPA and MDEQ and was also available for public review/comment. Figure 7 in the RI/FS Work Plan shows example data collected as part of the monitoring next to the landfills. Overall, the trends in fluoride and cyanide concentrations are decreasing.

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*"The discussion of the drum storage area should also be of great concern. Cyanide at 7,320 micrograms per liter is dangerous – drinking water standard is 200 micrograms per liter. The fact that the well with this high concentration is roughly 100 yards straight west of the dump is equally important – it appears to support Roux's assertion that water off the face of Teakettle Mountain flows straight west. Water under the dump is carrying this pollution plume west, then, and not south to the river. The head pressure from Teakettle Mountain makes it very hard to make a good argument for southerly versus westerly flow towards Cedar Creek from this dump Site. The cyanide in Cedar Creek is north of this area, but straight west of another dump site. CFAC claims no failed cathode material was ever stored at this Site. With the cyanide find in the creek, this dump site should be drilled to make sure."*

Groundwater flow directions are discussed in Section 3.3.2.1 of the Phase I Data Summary Report. Site-wide groundwater elevations are interpreted using groundwater elevations measured in monitoring wells across the entire Site. The interpretation and description of groundwater flow presented in the report is an accurate representation of the Phase 1 data. As shown in the Phase 1 report, groundwater flow is oriented southwesterly near Teakettle Mountain, and then shifts towards a southerly direction beneath the Site as the distance from Teakettle Mountain increases.

As described in Section 3.3.2.3 of the Phase I Data Summary Report, the groundwater and surface water elevation data collected at the Site and the Site conceptual model do not suggest that impacted groundwater discharges to Cedar Creek. The elevations measured in the north end of Cedar Creek and the south end of Cedar Creek indicate the creek bed is at elevations higher than groundwater elevations measured in the western most monitoring wells closest to the Creek. These data indicate that groundwater beneath the Site is not discharging to Cedar Creek.

The Scope of Work outlined in the RI/FS Work Plan was prepared to evaluate the environmental conditions across the entire Site, including the Former Drum Storage Area. The Scope of Work was reviewed and approved by EPA and MDEQ. In the Former Drum Storage Area specifically, the work included two new monitoring wells in the Former Drum Storage Area, and multiple wells south and west of the Area. The Scope of Work also included monitoring wells around and down gradient of the historical landfills. Additional investigation of the landfills will also be completed during the Phase II Site investigation. The second phase of work will be developed in consultation with EPA and MDEQ.

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*"The last area of concern is poly-aromatic hydrocarbons (PAHs) on the Site. Very little was said about these compounds, which are found in coal tar pitch."*

The assertion that CFAC said very little about PAHs is false. The Phase I report clearly identifies PAHs as one of the primary types of COCs present at the Site. A map showing the representative extent of PAHs based on the Phase I data was presented at the CLP meeting. It was acknowledged during the meeting that PAHs will require further evaluation in the next phases of the RI/FS process.

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*"The paste plant at CFAC used a one-pass water scrubber for 45 years to wash these PAH compounds out of the off-gas. All of this water was contaminated and 66,000 gallons per day were directly injected into the underground aquifer below the plant."*

The use of percolation ponds for the discharge of the waste water has been well documented for many years and the activity was conducted pursuant to a discharge permit from MDEQ. The Phase I work included sampling within, beneath, and around these areas to evaluate soil and groundwater, and these evaluations will continue throughout the RI/FS.

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*"There are no written goals for the site at this time because this suits the interest of CFAC and the EPA."*

The CFAC site is listed on the National Priorities List and is being addressed as part of the federal Superfund Process with the ultimate goal of protection of public health and environment. EPA, MDEQ, CFAC, and Roux have provided a review and description of the path through the Superfund process during each public meeting presentation. The specific remedial goals and objectives for any future remedy will be determined by following this process, which is the same process that is conducted at all federal Superfund sites across the country. This process will include the continued opportunity for public involvement.